What is Claimed is:

- 1. A heat resistant high-chromium containing ferrite steel based on ferritic phase and containing 13 % by weight or more of chromium, and containing precipitates of intermetallic compounds.
- 2. The heat resistant high-chromium containing ferrite steel as claimed in Claim 1, wherein the intermetallic compound is at least one type of precipitates selected from the group consisting of a Laves phase, a μ phase, a σ phase, or a compound represented by Ni₃X, where X is Al or Ti.
- 3. The heat resistant high-chromium containing ferrite steel as claimed in claim 1 or 2, wherein the ferritic phase is contained 70 % by volume or more.
- 4. The heat resistant high-chromium containing ferrite steel as claimed in anyone of claims 1 to 3, wherein Mo is contained 0.5 % by weight or more and W is contained 1.0 % by weight or more.
- 5. The heat resistant high-chromium containing ferite steel as claimed in anyone of claims 1 to 4, wherein Co is contained 1.0 % by weight or more.
- 6. The heat resistant high-chromium containing ferrite steel as claimed in anyone of claims 1 to 5, wherein the ferrite steel has a following chemical composition (weight %).

Cr $13 \sim 30$

Mo $0.5 \sim 8.0$

 $W = 1.0 \sim 8.0$

Co $1.0 \sim 10.0$

C 0.50 or less

N 0.20 or less

B 0.01 or less

Nb $0.01 \sim 2.0$

Fe residue

and may contain unevitable impurities.

- 7. A method for producing a heat resistant high-chromium containing ferrite steel as claimed in anyone of claims 1 to 6, comprising steps of a hot working bulky steel derived from a melt raw materials and a annealing hot worked steel.
- The method for producing a heat resistant high-chromium containing ferrite steel as claimed in claim 7, wherein the step of annealing is comprised with processes of a heating at the temperature of 1000° or more and a cooling in a furnace.